**Key Points**

1. Traditional Chinese Medicine uses a holistic approach which views the body as an interconnected whole with a natural balance.
2. The concept of Yin and Yang - polar opposites that define each other, like hot/cold - permeates the framework of TCM.
3. Every organ has both structure and function in balance - Yin/Yang.
4. Qi is a vital energy force that flows through channels in the body.
5. Disease results from an imbalance in the body and a disruption in the flow of Qi.
6. Treatments are designed to restore the body's natural balance.
7. Acupuncture and herbal medicine are common treatments.
8. Acupuncture involves the insertion of thin needles into specific points in order to restore the flow of Qi.
9. There is some evidence that acupuncture is beneficial for certain conditions.
10. No one has been able to prove the mechanism by which acupuncture works.
11. Many modern practitioners take a blended view and mix western techniques with acupuncture.

**Definitions**

- **acupoints** - very specific points on the body which are used for acupuncture.
- **acupuncture** - medical technique where thin needles are inserted into specific points on the body to restore the flow of Qi.
- **electroacupuncture** - acupuncture technique where a very small electrical current - set

**Acupuncture and Traditional Chinese Medicine**

Acupuncture may not be part of daily life for most people in the US, but in China - and other parts of the world - acupuncture and the use of herbs has been part of daily life for a very long time. Chinese culture dates back thousands of years, and as the culture evolved and advanced, a sophisticated system of medicine, known as Traditional Chinese Medicine (TCM), developed with it.

Because the basis of the Chinese Medicine system is so different from what we are used to in the West, historically, there has been a strong bias against its use in the modern US healthcare system. The techniques used, acupuncture and herbalism, are not easily explained, so many doctors in the West are skeptical and suspicious of their usefulness.

For many years, the two medical systems were essentially competing with each other, with practitioners in each camp claiming the superiority of their system and methodology. Acupuncture, massage, and herbalism were considered alternative therapies in the West, while some proponents of TCM in China sneered at the high-tech Western approach.

Luckily for patients, some in the medical community today are beginning to realize the benefits of accepting both systems as valid points of view and are combining the best that each has to offer. In modern China, the use of acupuncture and herbalism is integrated into what the US would call modern medicine at a fundamental level. In the US, there is a growing acceptance - or at least a willingness to evaluate - some of the ancient techniques as complementary therapies, not alternatives.

As evidenced by the research update, *Dealing With Chronic Pain*, by and large, the medical community has so far failed to effectively address the needs of chronic pain patients. Because of this, many turn to complementary techniques like acupuncture, and make them part of their Daily Living.

**Principles of TCM**

The principles behind TCM are strikingly different than Western medicine. TCM uses a holistic approach which emphasizes the body as a whole and stresses the interdependence of the parts. Western medical philosophy, in contrast, is extremely reductionist, with specialists for nearly every part of the body, heart, lungs, blood, etc.

Perhaps the most dramatic difference along these lines is the Western idea that problems are either mental or physical, essentially creating a mind-body split. In TCM, there is no such split, and problems are not thought of as being one or the other.

Thus, TCM views the body as an ecosystem of interrelated parts in a natural balance. In this view, disease is thought of as an imbalance of the natural order of the body and treatments are designed to restore the body's natural balance and rhythm. A body in perfect balance is not sick and heals quickly from trauma. Ancient Chinese doctors would focus their attention on maintaining the balance/health of their clients and see them on a regular basis, not just when they were sick. In fact, according to folklore, it was considered a failure and embarrassment if their clients got sick.

In Western medicine, disease is usually characterized as having an external cause and treatments are focused on eliminating those external causes. Clearly, viruses and bacteria exist, but the difference between the two systems is highlighted in the treatment methods. Does the doctor address the pathogen directly, or does he try to restore the body's systems to fight off the illness?

The balance referred to in TCM is visualized using the concept of Yin and Yang (See Figure 1). In Chinese medicine - and really Chinese philosophy in general - there are two aspects to everything, Yin and Yang. Yin and Yang are opposites, yet at the same time, they are interdependent and the existence of one defines the other - you can't have day without night. Yin represents things that are cold, dim, and quiet, while Yang represents things that are hot, bright, and active.

The balance between the two is not static, but rather the two forces flow back and forth in a natural rhythm; day fades to night, night becomes day. It is this naturally flowing balance that represents health and well being in a person. Every part of the body is part Yin and part Yang, and is defined by both structure and function, not one in isolation. Thus, in TCM, a prolonged imbalance of TCM results in disease and treatments are focused on restoring the natural balance and rhythm of the body.

**The Body According to TCM**

In a simplified view, TCM describes the human body in terms of Qi, Moisture, Blood, and Organs. As to be expected given the philosophical underpinnings, the interrelations between the different body components are strongly emphasized.

Qi - Pronounced “chee”, Qi is a vital force that flows through the body along certain channels. While this force...
to a specific frequency - is passed through acupuncture needles

electromagnetic - having to do with a magnetic field produced by an electric current

fMRI - functional Magnetic Resonance Imaging; MRI technique used to identify which parts of the brain are used during certain tasks

holistic - focus on the whole, rather than on separate, individual parts

MRI - Magnetic Resonance Image; diagnostic device which uses a strong magnetic field to create pictures of internal body structures

meridian - another name for a Qi channel in the human body

neurotransmitter - type of chemical - in the brain - which transmits nerve impulses across gaps or synapses

Qi - pronounced "chee"; vital, invisible energy force that flows through the body along specific channels

Traditional Chinese Medicine - System of medicine which dates back thousands of years and relies on acupuncture and herbs as the primary forms of treatment

visual cortex - area of the brain which receives and processes nerve signals from the eyes

YinYang - philosophical construct which holds that all things are a balance of two components - Yin and Yang - which are polar opposites, yet interdependent (See Figure 1), and by their existence define each other; hot/cold, joy/sadness for example

can't be seen, measured, or touched it is the foundation of health and well being. While the overall concept of Qi is straightforward, there are actually several variations of Qi Qi you are born with for example, and defensive Qi, which is in the muscles and skins and defends the body against pathogens. If Qi is out of balance, either too much or too little Qi flowing in a certain area, the body is weakened and not able to defend itself from disease. Treatments are aimed at restoring the natural and full flow of Qi and enabling the body to be in its naturally healthy state.

Moisture - Also called Body Fluid, Moisture is the liquid - formed from food and drink - which exists in the blood, tissue, and organs of the body, and protects and lubricates tissue.

Blood - Blood is similar to the Western concept of blood in that it carries oxygen throughout the body, but as is common with TCM, the definition is more extended. Blood is also considered to be the basis for the creation of bones, skin, muscles, etc. Blood and Qi are tightly connected and the flow of one affects the other.

In TCM there are five major organs (there are more minor organs, but they will not be reviewed here). It is interesting to note that while the definitions were developed more than 1,000 years ago, there are strong parallels with the modern definitions. As with Blood however, the TCM definitions tend to extend out and highlight an organ's connectedness with the rest of the body. In TCM, every organ has both a structure and function and manifests a balance of Yin and Yang.

Heart - The heart is responsible for circulating blood throughout the body, but in addition, is responsible for the mind. Thus a problem with the Heart, may manifest as anxiety, sleeplessness, and forgetfulness, in addition to the Western concept of heart problems.

Liver - The Liver is responsible for storing blood, the flow of Qi, even temperament, and muscle tone. Thus, problems with the Liver may manifest in ways as varied as high blood pressure, muscle spasms, and irritability.

Spleen - The Spleen is responsible for the assimilation of food - digestion - as well as ideas. Problems with the Spleen range from indigestion to anorexia to an inability to concentrate.

Kidney - The Kidney goes beyond regulating the fluids - such as urine production - and also controls growth and reproduction, and is responsible for the production of marrow (which in itself goes beyond the Western definition of bone marrow to include things such as neural tissue). Infertility, retarded growth, dizziness and apathy are all considered problems of the Kidney.

Lung - The Lung - as to be expected - regulates respiration, but also is connected with establishing the body's rhythm and the skin and hair. Thus in addition to breathing problems, rashes are also a sign of trouble with the Lung.

Disease, Diagnosis, and Treatment

As stated earlier, disease results when an imbalance occurs in the natural flow of Qi and Blood. This results in either an accumulation or deficit in one or more of the organs, which then throws off the function of the organ and results in symptoms that can be seen. Traditionally, the ancient Chinese doctors would diagnose problems by talking with a patient, feeling their pulse, looking at their face and eyes, and especially looking at the tongue.

While some of these techniques are still used today, they have been modified and transformed over time. The ancient pulse diagnosis actually looked at 12 different pulses (deep and shallow pulses for example). The pulse diagnosis technique is difficult to master and is being replaced - even in China - with a simpler version.

The main forms of treatment in TCM are acupuncture and the use of herbs - although massage, and other techniques are used as well. Acupuncture is a technique where very thin needles are inserted into specific points on the body, acupoints, in order to restore the normal flow of Qi. This fairly painless procedure is very low risk, and traditionally has been used to treat almost any condition. A typical session will last less than an hour, and most conditions are treated with just a few sessions.

Acupuncture In The US

Today in the US, acupuncture is beginning to emerge from the shadows and become mainstream. Acupuncture is regulated at the state level and there is a national accrediting agency, the National Certification Commission for Acupuncture and Oriental Medicine (below). There are thousands of M.D.’s who are trained in acupuncture and acupuncture as practiced today is likely to be a mix of ancient thought and modern technology.

Sources

- Basic Principles of Chinese Medicine, George Lewith M.A. (www.healthynet.com)
- The Conceptual Basis of Chinese Medicine, George Lewith, M.A. (www.healthynet.com)
- Introduction to Traditional Chinese Medicine, www.taichinesemedicine.com
- National Center for Complementary and Alternative Medicine (NCCAM)
  - One of 27 institutes or centers under the National Institutes of Health (NIH)
  - Established by Congress in 1998
  - Mission is to support rigorous research on complementary and alternative medicine (CAM), train researchers in CAM, and disseminate information to the public and professionals on which CAM modalities work, which do not, and why
  - FY 2003 Budget = $114,149,000
The acupuncturists we spoke with all recognize the ancient thoughts on acupuncture, but also recognize the power of modern medicine. These modern day acupuncturists utilize the best of both systems. While the diagnosis process may involve checking the pulse and the tongue, it is also likely to involve a history, a neuro exam, and looking at MRIs and X-rays.

One of the most dramatic advances in acupuncture is electroacupuncture (EA). This combines traditional acupuncture with an electrical current applied to the needles at a specific frequency and intensity. For pain relief and muscle tension, some acupuncturists use EA exclusively. This technique is based on the recognition that the body’s nervous system uses electricity and on research which shows that the body responds to electrical currents at different frequencies.

A second, and equally important, advance has been the adoption of disposable needles. Since about 1980, virtually every acupuncturist in the US has used disposable needles for their treatments. This way there is no chance of passing disease from one patient to another. While this is the way its supposed to be, it’s a good idea to check with your acupuncturist - before he or she starts - to make sure they are using disposable needles.

As the two medical systems mix, many doctors and acupuncturists are also becoming more specific in defining a role for acupuncture and not assuming it is appropriate for treating everything. Again, the practitioners we spoke to emphasized the complementary role that acupuncture can play in treating serious conditions - like Chiari and SM - as opposed to taking a cure-all approach.

Does Acupuncture Work?

As acupuncture becomes more common in the US, there is naturally more focus on answering the question of whether it works. Beyond the basic language barrier, one reason acupuncture has been slow to be adopted by the established medical community is that many of the studies on acupuncture lack the methodological rigor required by the Western scientific community. But, as the number of people trained in both acupuncture and the scientific method grows, so too does the amount of rigorous research into the effectiveness of acupuncture.

In 1997, the National Institutes of Health (NIH) addressed this question by convening a panel of non-partisan experts to listen to presentations, ask questions, and try to reach a conclusion. The panel issued a Consensus Statement which essentially stated that despite some limitations on the research, there is evidence that acupuncture is effective in treating some conditions and that more research is warranted.

In 1998, responding to the growing popularity of alternative medicines among the public, the US Congress established the National Center for Complementary and Alternative Medicine (NCCAM, below), as part of the NIH. According to Dr. Stephen Straus, NCCAM Director, “We are dedicated to exploring complementary and alternative healing practices in the context of rigorous science; educating and training CAM researchers; and disseminating authoritative information to the public and professionals.”

National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM)

- Non-profit, certification organization for acupuncture and Oriental medicine professionals
- Established in 1982
- Over 13,000 certified in acupuncture, Chinese Herbology, and Asian bodywork
- October 24th was National Acupuncture and Oriental Medicine Day

A quick Medline search revealed 641 research articles with acupuncture in the title or abstract since the start of 2002. Topics ranged from studying acupuncture in heart disease, cancer pain, back pain, and quitting smoking, to name just a few. As Federal funds have been introduced, more controlled, randomized trials are being conducted, improving the overall quality of the research.

So does acupuncture work? The short answer is that for some conditions, yes, it does work, and the more research is done, the more likely it is to be shown to work in even more cases. For example, one recent study showed that acupuncture was fairly successful in flipping breech babies. There is also pretty strong evidence that acupuncture can help with different types of pain, including dental pain and neck pain.

One of the more intriguing lines of research into acupuncture involves trying to identify the mechanism by which it works. Some people still believe in the idea of Qi, some people think something similar to the Qi channels exist but we haven’t found them yet, and some people think a different mechanism is at play.

The introduction of functional MRI - used to identify which areas of the brain are active during certain tasks - has shown dramatically that acupuncture has real physical effects. One study demonstrated that an acupuncture point on the little toe associated with correcting vision problems did indeed stimulate the visual cortex in the brain when a needle was inserted. Other studies have shown similar connections between acupoints and corresponding regions of the brain.
Theories for how acupuncture works are varied. One states that acupuncture accelerates the conduction of electromagnetic signals, another that acupuncture triggers the release of natural opioids into the central nervous system, and a third focuses on acupuncture changing the release of neurotransmitters in the brain. While some evidence exists to support each of these, none have been proven conclusively, and there is still the possibility that some form of channels or meridians exist in the body. While many doctors and scientists may scoff at the idea of an unseen energy in the body, it is interesting to note that a current leading theory in physics claims that the vast majority of the Universe is made up of a mysterious Dark Energy that can not be seen or measured in any way.

Unfortunately, there is very little research on whether acupuncture can help with Chiari and syringomyelia. Although syringomyelia can be described using the TCM terminology (see In the Spotlight Part 1), the acupuncturists contacted for this article in general would not use acupuncture as the only - or primary - treatment for the actual syrinx, but would instead focus on combining acupuncture with traditional treatments in an effort to control pain and improve quality of life. For this, there is some indirect evidence of acupuncture’s effectiveness. Acupuncture has been shown to help alleviate dental pain, some cancer pain, and is often used for back and neck pain. Anecdotally, this publication has received reports of acupuncture being used as a primary treatment for SM, and an alternative to surgery, but there is no real evidence as to the long-term success of that approach.

**East Meets West - A Global Yin/Yang**

Today, acupuncture and TCM are becoming mainstream treatment options. As more and more doctors become familiar with the concepts of acupuncture and TCM, the two systems of medicine will begin to complement each other instead of competing with each other. After a motor vehicle accident, most people would prefer a Level One Trauma Center, but for general health and dealing with chronic pain, TCM has a lot to offer. In one sense Western medicine and TCM can be thought of as the Yin and Yang of global medicine; opposites, yet when they exist in a natural balance they can create health and well being.

Read about my personal acupuncture experience in this month’s Special Report.